

WHAT IS CLAIMED IS:

1. A rotor of a synchronous motor comprising:
  - a main core, formed from a plurality of laminated thin iron sheets, the thin iron sheets having a hole at a center for receiving a rotating shaft, and a number of magnet holes and a number of induced conductor holes radially formed in the thin iron sheets at a predetermined space differently from the hole;
  - a plurality of magnets inserted into the magnet holes of the main core;
  - a supplementary cores, having a hole and induced conductor holes corresponding to the hole and the induced conductor holes of the main core, the supplementary cores disposed at the ends of the main core in which the magnet is inserted; and
  - an induced conductor ingoted through the induced conductor holes of the main core and the induced conductor holes of the supplementary cores.
- 15  
2. The rotor of a synchronous motor of claim 1, wherein the supplementary cores are formed of a plurality of laminated thin iron sheets.
3. The rotor of a synchronous motor of claim 2, wherein the thin iron sheets of the main core and the supplementary cores respectively include calkings corresponding to each other.

4. The rotor of a synchronous motor of claim 1, wherein the induced conductor is made of aluminum.

5. A method of manufacturing a rotor of a synchronous motor, comprising the steps of:

constructing a main core, formed from a plurality of laminated thin iron sheets, the thin iron sheets having a hole at a center for receiving a rotating shaft, and a number of magnet holes and induced conductor holes radially formed in the thin iron sheets at a predetermined space differently from the hole;

inserting magnets into the magnet holes of the main core;

disposing supplementary cores having a hole and induced conductor holes corresponding to the hole and the induced conductor holes of the main core formed at the ends of the main core; and

ingotting an induced conductor through the induced conductor holes of the main core and the induced conductor holes of the supplementary cores.

6. The method of manufacturing a rotor of a synchronous motor of claim 5, further comprising the step of laminating a plurality of thin iron sheets when disposing the supplementary cores.

7. The method of manufacturing a rotor of a synchronous motor of claim 5, further comprising the step of matching each thin iron sheet by calkings formed at the thin iron sheets when the main core and the supplementary cores are laminated.

5

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